

DPR Korea and FAO

Achievements and success stories

FAO Representation in DPR Korea
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Introduction

The Food and Agriculture Organization of the United Nations (FAO) has been providing support to the Democratic People's Republic of Korea (DPRK) for well over three decades.

FAO is normally the focal point for the United Nations Agriculture/Food Security Theme Group and its Sub-group on Sloping Land Management, which are overseen by the UN Resident Coordinator.

Over the last three decades, about 200 field projects assisted by FAO have received total funding worth US\$64.4 million.

FAO has supported the DPRK's efforts to achieve food security through technical assistance in areas such as agro-forestry, soybean cultivation, fruit production, marine aquaculture and capacity building.

FAO has also supported rehabilitation activities related to double cropping, conservation agriculture, horticulture and the prevention of transboundary animal diseases such as avian influenza and foot-and-mouth disease.

Policy-makers, government staff and researchers in the DPRK have benefited from various international study tours and regional FAO programmes that have enabled the exchange of experiences and expertise.

1. Analytical summary

1.1. Crop and food security assessments

Chronic food insecurity, at both the national and local levels, has limited the access to food for vulnerable sections of the population and prevented adequate dietary diversity. Severe shortages of basic agricultural inputs as well as the limited arable land have been exacerbated food deficits in the country.

The total agricultural land area in the DPRK is estimated to be 1.85 million hectares, of which approximately 1.4 million hectares are used for paddy rice cultivation or are suitable for cereal and other food grain production. Potentially, 80 percent of this land can be irrigated, mainly by pumping water from rivers.

In October 2008, a comprehensive assessment of food needs, entitled the Crop and Food Security Assessment (CFSA), was carried out jointly by FAO and the World Food Programme (WFP). The CFSA estimated a cereal shortfall of 836 000 tonnes for the marketing year ending in October 2009 that left 8.7 million people in need of food assistance.

Two years later, FAO and WFP conducted a Crop and Food Supply Assessment mission in the DPRK from 21 September to 2 October 2010. The mission was concluded successfully and the official report was released in early November 2010.

Food prices remain high, despite an easing of prices since the peak of the commodity boom in mid-2008. To accommodate the need for a more diversified diet, FAO has expanded its focus beyond cereal seeds to include project and programmes such as expansion of potato planting and proposals for the rehabilitation of the inland fisheries sector.

1.2. Technical cooperation

During the early years 1985 to 2000, UNDP funded 17 longer term technical cooperation projects with a total value of close to \$12 million, while more than 50 FAO funded projects (under the Technical Cooperation Programme – TCP) were implemented in response to urgent requests from the government for emergency as well as technical assistance in various aspects of agriculture, livestock, forestry and fishery.

Adopting more comprehensive programme approaches since the second half of the 1990s, FAO assistance increasingly focussed on flood control and both immediate and longer term aspects of double cropping development – with funding of \$3 million under the Office for Special Relief Operations (OSRO), supplemented by \$2.1 million funding from Italy for two phases of the Special Programme for Food Security.

1.3 Emergency and rehabilitation projects

FAO provided its assistance mainly in the “cereal bowl” provinces (North and South Hwanghae, North and South Pyongan and Pyongyang), and Kangwon and South Hamgyong provinces.

2. Selected successful FAO programmes

2.1 During the 1980s

During the 1980s the Organization implemented some 35 projects. UNDP financed close to \$10 million of FAO technical assistance projects – first and foremost in horticulture development (fruits, mushroom) amounting to \$2 million. In addition, rice improvement, maize breeding, seed processing and the livestock sector received valuable FAO support. Capacity building support was provided to soil, water, and plant analysis laboratories and the fisheries institute.



With funding provided from FAO's Technical Cooperation Programme (TCP) study tours were organized, a pilot farm established for direct rice sowing on tidal lands, new irrigation techniques promoted, and pasture and forage further developed.

2.2. During the 1990s

During the 1990s, close to \$20 million of FAO support was provided to DPR Korea through over 65 projects.

Five out of six UNDP financed projects concentrated on upstream policy advice such as agricultural sector study and review, and efficiency in agriculture, while one project promoted soilless culture of greenhouse vegetables.

With TCP financing, five out of 35 projects provided emergency assistance starting from late 1995 for a total

of close to \$2 million, while in the early years of this decade, FAO TCP support was largely geared to food control systems and plant and pest disease surveillance and control as well as the introduction of Integrated Pest Management (IPM).

With extra budgetary financing, both technical assistance and emergency support was provided.

The 1990 also saw the start of the long running double cropping programmes in 1997 with funding provided by WFP and Nordic countries.

2.3. Double cropping programme

More than 20 large-scale FAO programmes for double cropping were implemented during the 2000s with a value of well over \$17 million, with Sweden, Norway, Denmark and Italy as the main donors. During the decade the double-cropping programme evolved into the special programme for food security. The Government of the DPRK encourages double-cropping among Co-operative Farms to produce more food on the limited cultivation area. It became one of the main priorities of the Government's policy on agriculture.

2.4. Special programme for food security

Project GCSP/DRK/003/ITA *Special Programme for Food Security*, was approved in November 2001, with a budget of US\$970 000 provided by the Government of Italy.

The overall objectives of the SPFS were to strengthen food security, revitalize the rural economy and alleviate rural poverty in order to enhance economic and nutritional well being. These objectives were to be achieved by securing sustainable increases in the productivity of major food commodities through a better utilization of inputs, including improved water and soil management and the expansion of production through new crop varieties. The project selected three pilot cooperative farms in Gopi, Sunham and Waeso.

The project increased the full irrigated area from 838 ha to 1 536 ha during its implementation. As a result, it is estimated that the net increase of cereal production in the larger irrigated area alone would be 349 tonnes, with a further 23 tonnes increase gained through the

construction of the heating pond. The net gain from the irrigation component would thus be 372 tonnes. The saving of electricity was calculated as 201 600 kW and that of maintenance labour at 1 120 manpower hours.

With regards to crop variety improvement and crop rotation, some 30 percent of the project pilot areas adopted new varieties and crop rotation on the available arable land, with increases in production estimated at as much as 30 percent. Vegetable production was estimated to have doubled.

During implementation, activities for the better management of agricultural production at farm level were promoted, through close collaboration among the PMU, county and farm officers, and farmers. Discussions, workshops and other types of participatory approaches at different levels, as well as active technology transfer, assisted in improving farmers' awareness of new and good agricultural practices and farming systems.

On the basis of the phase I implementation, the project has now entered a second phase, with funding amounting to \$1.1 million provided by Italy.

The Central Emergency Response Fund (CERF) supported the FAO project entitled *Emergency support to 2010 spring and summer crop production*. The US\$1.4 million project commenced in March 2010 and ended in December 2010. It had the following key objectives: to increase the production of the main 2010 spring and summer crops by providing urea fertilizer to stabilize food prices and increase availability; and to promote livelihoods recovery activities in the cooperative farm sector.

For the second round of the under-funded crisis window in 2010, CERF agreed to contribute an additional US\$899 999 for the project *Emergency support to 2010 spring and summer crop production*, which aims to safeguard the lives of food-insecure farming families in the targeted cooperative farms by increasing the production of vegetables during winter 2010 and spring 2011 through the provision of vegetable seed and NPK fertilizer. The project commenced on 20 September 2010 and is expected to conclude on 30 June 2011.

DPRK has been short listed as a priority country in the first round of the under-funded crisis window in 2011.

Discussions are currently being held in Pyongyang on the allocations per sector. The new project on agriculture is worth around US\$650 000, although this has not been finalized.

2.5. Bird flu

FAO has provided support to DPR Korea to combat Avian Influenza through both regional and country TCP projects, as well as extra-budgetary projects. The projects focused on a wide range of activities, including emergency assistance, emergency preparedness, capacity building and beyond.

Projects OSRO/DRK/503/AUL and TCP/DRK/3006, for instance, focused on supporting the Veterinary and Anti-epidemic Department of the Ministry of Agriculture, in order to prevent the re-introduction and establishment of avian influenza in their country by ensuring that the emergency preparedness plans are fully underpinned by the necessary surveillance programme and diagnostic laboratory facilities and technical expertise.

OSRO/DRK/703/EC – with a different angle – provided assistance to build the capacity of the agricultural and health sectors in the accurate diagnosis, control and prevention of highly pathogenic avian influenza (HPAI), specifically given by H7N1 and other notifiable avian influenza viruses, in an effort to control the emergence of potential pandemic influenza virus strain, thereby reducing the risk for neighbouring countries and the world at large.

2.6. Conservation agriculture

The FAO project TCP/DRK/2903 introduced conservation agriculture, initially in three strategic cooperative farms. Equipment for direct seeding and planting of crops, for covercrop and weed management and for harvesting was introduced, along with some covercrop seeds and herbicides.

Partnership consultants from Brazil and China, as well as FAO technical staff visited the project farms frequently and provided intensive hands-on training. In addition, a number of extensive theoretical and practical training programmes promoting conservation agriculture were

provided to the project farms and to other cooperative farms in the country by the Ministry of Agriculture together with the Academy of Agricultural Sciences. Study tours for project staff were organized to Brazil and to China. A Korean Conservation Agriculture Manual was produced, of which a second revised and expanded edition is being prepared.

Each farm introduced conservation agriculture on about 50 ha of land in different brigades and in different crops, mainly in maize and soya as summer crops and wheat as

winter crop, and also rice in the irrigated lowlands. Due to some initial delays the project was extended into a third year and it ended at the end of 2005.

At the end of the project, positive results were yielded: the soils under conservation agriculture recovered visibly with soil structure, moisture, soil organic matter values and nutrient levels improving. The erosion was significantly reduced. Yields started to rise. The ministry of agriculture adopted a policy to actively promote conservation agriculture.

Success stories

1. Impressive impact of conservation agricultural

Land for agricultural production in the Democratic People's Republic (DPR) of Korea is extremely limited. In the past it has been heavily exploited, leading to serious degradation requiring high amounts of inputs to sustain production levels. In 1990, the DPR Korea suffered a series of natural disasters while at the same time the supply of production inputs from the former Soviet Union ceased. This seriously affected agricultural production and food security in the DPR Korea, leading to food shortage in the country. During this time, the double cropping programme which was expected to enhance agricultural production was introduced – it however led to further exploitation of the soil resources. In addition, the agricultural mechanization infrastructure was affected by shortages of fuel and spare parts resulting in serious bottlenecks in achieving timely operations in the field.

As a result, FAO was requested to provide technical assistance in the introduction of Conservation Agriculture to address the problems in agricultural production in the DPR Korea. Through this programme, the soil structure was improved with visible signs of improvement evident in the first two years of the project. It further promoted the elimination of soil tillage, the maintenance of a permanent soil cover, varied crop rotation, a reduction in fertilizer requirements and significant savings in labour, time and fuel. In addition, conservation agriculture promoted the efficiency of the double cropping programme which enabled the production of both summer and winter crops, which had previously been limited by labour and fuel shortages. Through conservation agriculture, erosion risk was reduced and production was stabilized. The shortage of land for food production had resulted in the encroachment of agriculture into forest and slope areas increasing the risk of erosion and destabilization of agricultural production.

With donor funds, additional equipment was purchased, which allowed expansion of conservation agriculture to a total of 20 farms which apply it on about 2 000 ha of

land with increasing success. Many farms which participated in the training are keen to adopt conservation agriculture and start experimenting even in the absence of the required equipment. Thus techniques for no-tillage direct seeding and transplanting of rice without puddling were developed, resulting in increased yields and significant savings in fuel and labour. Several farms are experimenting with good results with no-tillage potato, grown on the soil surface under a cover of rice straw as double crop with rice.

Conservation agriculture was also applied to horticulture crops such as cabbage, which is a very important food crop in DPR Korea. The surface mulching resulted in much higher yields and irrigation water savings in cabbage. Other farms started to produce with their own technical means prototypes of no-till seeders once they had understood the principles of conservation agriculture and had seen the commercial equipment at work. Initial conflicts between leaving the crop residues as mulch or using them as fuel or for other purposes were overcome in most cases once the benefits of the surface mulching in terms of weed control and soil improvements were seen by the farmers. Alternative fuels in the form of coal were provided by the cooperative managements to facilitate the retention of the residues in the field. Conservation Agriculture has under these dramatic conditions shown an impressive impact and the FAO TCP project has initiated a development which hopefully can assist the country to achieve food security and sustainable agricultural production in the future.

2. FAO, WFP and IFAD are working together, along with national authorities, in continuing efforts to avoid national food disasters, to achieve food security and to raise family incomes in the Democratic People's Republic of Korea.

The three agencies have collaborated in seasonal crop assessments, in the provision of emergency food and agriculture inputs, in the rehabilitation of crops, livestock and infrastructure, and in the investigation of future investment needs.

Since December 1995, FAO and WFP have conducted eight *Joint Crop and Food Supply Assessment Missions*. These assessments, the only regular UN food studies conducted in the country since the food crisis began, help FAO, IFAD and WFP to determine the impact of the food aid and crop production programmes in the country and to plan future interventions.



In December 1995, IFAD approved the first international loan for the Democratic People's Republic of Korea, the Sericulture Development Project.

Subsequently in 1997, all three agencies collaborated in designing a project to rehabilitate rice and maize production in the short term and promote livestock development overall. WFP is currently exploring innovative ways to support this project and to further strengthen its partnership with IFAD in food-for-work activities related to agricultural rehabilitation in the country.

3. Popular revolution in potato in North Korea

Potato has been grown in the Democratic People's Republic of Korea (DPRK/North Korea) since the late 19th century but outdated production methods, extreme weather and disease outbreaks have left the country with miserable yields far below the world average.

Although a gloomy record, it does mean that the country has the potential to make substantial gains by restructuring its potato industry and introducing new

technologies. As a result, a four-year FAO, CFC (Common Fund for Commodities) and CIP (International Potato Center) project due to conclude this year, has placed potato at the heart of efforts to achieve widespread food security. It brings national and international research institutions and potato farmers together to improve all aspects of the industry from seed to storage. At a cost of US\$3.5 million it is hoped that fundamental reform will provide long term benefits.

The 1990s was a bad time for arable farmers in DPRK, with a series of natural disasters wreaking havoc on food production: rice-growing areas were destroyed by the worst flooding in a century and millions of tonnes of stored grain were washed away. Then, potato crops were struck by a devastating outbreak of late blight and shortage of clean seed compounded the disaster.

Earlier initiatives to jump-start the potato industry had achieved little: in the late 1990s, some 6 000 tonnes of seed potato were brought into the county to help tackle the series of late blight outbreaks, but instead introduced new diseases. And, while DPRK had been making some progress towards propagating its own clean seed, equipment shortages slowed progress.

Collaboration between FAO, CFC and CIP aimed to revive the fortunes of potato growers by making improvements at various stages of the production process. It identified low-yielding varieties, poor quality seed and formidable storage losses as some of the key areas for action.

Improved varieties suited to the country's different climatic regions form the cornerstone of the project. Three early-maturing varieties that performed well in trials, *Favorita* and *Zhongshu No. 3* for the southern region and *Zihuabai* for the southern and northern highland regions, promise up to 50 percent higher yields. CIP expects the gradual introduction of these varieties to produce an additional 165 000 tonnes of potato each year on existing acreage and further gains will be made by using additional land to grow the improved varieties.

Reducing post-harvest losses by developing efficient potato stores has been another major focus. A jaw-dropping half-a-million tonnes of tubers have been lost in storage every year in the country, often due to poor

quality warehousing. Under the project, new low-cost stores were constructed, making the most of the country's ample supply of cement. It is hoped these upgraded stores will be replicated around the country. A sophisticated storage facility has also been built in the northern highland region to help breeders preserve the nation's core seed material from year-to-year.

Other notable achievements of the project include assisting the government in the preparation of seed certification standards, and giving breeders access to CIP's gene bank to encourage innovation. The use of True Potato Seed (TPS) from botanical seed is also on the rise and will help limit "carryover" diseases that plague seed tubers. So far around 1 500 ha have been planted with TPS in the country, and more is expected.

The project has also sponsored the training of over 650 farmers through Farmer Field Schools, and distributed teaching brochures to help farmers respond to challenges in the field. According to FAO, these have had an immediate impact, and the organization expects that

soon every potato farmer in the country will have access to improved planting material.

While the project has identified several ways to increase potato production, difficulties remain. One major constraint is the availability of fertiliser, which is in particularly short supply in North Korea. And while progress in crop trials has been promising, extreme weather is making work very difficult: extensive flooding has restricted yields again this year, destroying many crops, including potato. Meanwhile, high fuel prices are making it difficult for seed producers to transport clean seed from the highlands to growing areas at lower altitudes.

While the project was not intended to achieve food security through potato alone, it gives due importance to the role of potato in the wider drive to alleviate hunger. And, in spite of weather shocks and the ever-present threat of famine, FAO expects that potato will now play a significant role in the overall solution to food shortages in North Korea in the long term.

List of selected projects

Title	Symbol	EOD	NTE	Budget (\$)
Study Tour on Fish Processing Machinery	TCP/DRK/2304	1984	1985	117 350
Seed Processing	DRK/82/002/ /01/12	1985	1993	908 420
Maize Breeding	DRK/85/001/ /01/12	1985	1991	804 452
Establishment of a Pilot Farm for Direct Sowing of Rice on Tidal Lands	TCP/DRK/6651	1986	1988	202 000
Fishery Institutes	DRK/85/006/ /01/12	1987	1994	898 403
Rice Improvement	DRK/86/008/ /01/12	1987	1994	895 900
Strengthening of Soil, Water and Plant Analysis Laboratory	DRK/86/007/ /01/12	1987	1995	742 017
Livestock Development	DRK/86/006/ /01/12	1987	1995	536 458
Cultivation Development of Edible Mushroom Species	TCP/DRK/6752	1987	1988	133 000
Fruit Production and Storage	DRK/86/010/ /01/12	1988	1999	796 647
Horticulture	DRK/86/002/ /01/12	1988	1994	617 777
Assistance in Tidal Land	DRK/85/005/ /01/12	1988	1995	508 943
Shallow Sea Farming	DRK/86/005/ /01/12	1988	1995	442 072
Mushroom Development	DRK/88/007/ /01/12	1988	1995	419 784
Pasture and Forage Development	TCP/DRK/7851	1988	1989	105 000
Strengthening of Sungho Aquaculture Institute	DRK/88/002/ /01/12	1989	1997	177 437
New Irrigation Techniques	TCP/DRK/8952	1989	1991	115 728
Assistance to Improve Crop Production on the Paekmu Plateau	TCP/DRK/0051	1990	1992	337 993
Soilless Culture of Greenhouse Vegetables	DRK/90/002/ /01/12	1991	1995	1 686 197
Tree Seedling Production and Plantations	GCP/DRK/001/BEL	1991	1992	228 618
Goose Breeding and Production	TCP/DRK/2252	1992	1994	158 000
Strengthening Food Control System	TCP/DRK/2251	1992	1994	153 422
IPM Development for Rice in the Presence of the Rice Water Weevil	TCP/DRK/2355	1993	1995	145 000
Hazel Nut Production	TCP/DRK/2354	1993	1995	140 000
Efficiency in Agriculture	DRK/94/001/ /01/99	1994	1999	929 217
Disease-Free Silkworm Egg Production	TCP/DRK/2356	1994	1995	192 000
Efficiency in Agriculture	DRK/94/001/ /09/12	1994	1999	112 717
Modernization of Infectious Animal Disease Diagnosis	TCP/DRK/4554	1995	1997	293 000
Strengthening Analytical Facilities for Pesticides Residues in Food	TCP/DRK/4453	1995	1997	285 000
Improving Agricultural Training for Farmers	TCP/DRK/4451	1995	1997	218 866
Emergency Assistance to Flood Victims Through Support to Dry Season Vegetable Production	TCP/DRK/4556	1995	1996	201 000
Crop Germplasm Conservation and Utilization for Food Security	TCP/DRK/4555	1995	1997	155 000

Title	Symbol	EOD	NTE	Budget (\$)
Emergency Assistance for the Control of Siberian Pine Caterpillar	TCP/DRK/6612	1996	1997	292 500
Emergency Assistance to Flood Victims	OSRO/DRK/601/NET	1996	1998	143 612
Emergency Assistance to Flood-Affected Farmers	OSRO/DRK/702/EC	1997	1998	864 772
Emergency Supply of Fertilizer for the Summer Crop for DPR Korea	OSRO/DRK/704/SWE	1997	1998	666 000
Emergency Assistance for the Procurement of Fertilizers	TCP/DRK/6714	1997	1997	400 000
Emergency Assistance to Flood Affected Victims	TCP/DRK/6713	1997	1997	389 693
Emergency Assistance to Flood-Affected Farmers	OSRO/DRK/701/NOR	1997	1998	367 308
Emergency Supply for Fertilizer for the Summer Crop for DPR Korea	OSRO/DRK/707/CRE	1997	1998	344 109
Technical Assistance for the Production of Quality Biofertilizers	TCP/DRK/6611	1997	1998	176 500
Drought, Crop and Food Supply Assessment Missions	TCP/DRK/6715	1997	1998	170 883
Double Cropping Programme DPR Korea 1998	OSRO/DRK/708/LUX	1997	1998	113 394
Emergency Supply of Fertilizer for the Summer Crop for DPR Korea	OSRO/DRK/705/WVI	1997	1998	100 200
Emergency Assistance for the Double-Cropping Programme for 1998	OSRO/DRK/801/WFP	1998	1998	945 000
Emergency Assistance Through the Provision Winter Wheatseed and Fertilizer	OSRO/DRK/805/SWE	1998	1999	609 942
Increasing Rice Production Through the Provision of Agricultural Inputs (Fertilizer)	OSRO/DRK/802/NOR	1998	1999	533 812
Emergency Assistance for Increased Food Production	TCP/DRK/7823	1998	1999	372 000
Agricultural Statistics Training and Development	TCP/DRK/8822	1998	1999	292 000
Support to Agricultural Sector Study	DRK/98/006/ /08/12	1998	1999	215 502
Modernizing Diagnosis of Infectious Diseases of Livestock and Poultry (Phase II DRK/4554)	TCP/DRK/7821	1998	1999	114 000
Double-Cropping and Crop Diversification Programme	OSRO/DRK/902/SWE	1999	2000	1 298 700
Support to the Double-Cropping and Crop Diversification	OSRO/DRK/901/NOR	1999	2000	532 764
Livestock Development and Vegetable Production	GCSP/DRK/002/ROK	1999	2001	517 900
Increased Food Production Through the 1999/2000 Winter Crop Programme	TCP/DRK/8926	1999	2000	400 000
Disease Free Potato Multiplication to Increase and Sustain Food Availability	TCP/DRK/8927	1999	2001	357 500
Double Cropping and Crop Diversification	OSRO/DRK/903/WFP	1999	1999	300 000
Emergency Support for Food Security for the 1999/2000 Winter Programme	OSRO/DRK/904/NOR	1999	2000	251 915
Support to the agricultural production and diversification of the double-cropping programme in 2000, main and winter crops	OSRO/DRK/002/ITA	2000	2000	921 422

Title	Symbol	EOD	NTE	Budget (\$)
Support to Agricultural Production and Diversification of the Double Cropping Programme in 2000, Spring and Main Crop	OSRO/DRK/001/SWE	2000	2000	910 643
Support to the Agricultural Production of the Double-Cropping Programme – 2000/2001 Winter Crop Programme	OSRO/DRK/005/NOR	2000	2001	433 128
Increased Food Production Through the 2000/2001 Winter Crop Programme (recoded from TCP/DRK/0065)	TCP/DRK/9065	2000	2001	385 551
Support to the Agricultural Production and Diversification of the Double-Cropping Programme in 2000	OSRO/DRK/004/NOR	2000	2000	220 380
Improved Management of Rice and Maize Pests	TCP/DRK/8925	2000	2001	179 500
Establishment of Modern Seed Inspection Centre (recoded from TCP/DRK/0066)	TCP/DRK/9066	2000	2002	164 485
Support to the Agricultural Production and Diversification of the Double-Cropping Programme in 2000	OSRO/DRK/003/FIN	2000	2000	158 748
Special Programme for Food Security – Phase I – Korea	GCSP/DRK/003/ITA	2001	2005	969 929
Support to the Double-Cropping Programme Spring and Main Crops 2001	OSRO/DRK/101/SWE	2001	2001	819 672
Emergency Supply of Fertilizer in Flood Affected Areas	TCP/DRK/0170	2001	2002	400 000
Strengthening Small-scale Milk Processing Capacity	TCP/DRK/0168	2001	2003	372 000
Support to the agricultural production and diversification of the double-cropping programme in 2001 main and winter crop	OSRO/DRK/103/NOR	2001	2001	329 374
Support to the Agricultural Production and Diversification of the Double-Cropping Programme in 2001 Mani and Winter Crop	OSRO/DRK/102/FIN	2001	2001	293 488
Improved New Vegetable Cultivation Technologies (recoded from TCP/DRK/0167)	TCP/DRK/9167	2001	2002	123 131
Improved New Vegetable Cultivation Technologies	TCP/DRK/0167	2001	2002	121 697
Support to the Double-Cropping Programme – Spring and Main Crops 2002	OSRO/DRK/201/SWE	2002	2002	474 255
Support to the Double-Cropping Programme – Main and Winter Crops 2002	OSRO/DRK/203/NOR	2002	2003	350 344
Participatory Integrated Watershed Management in Upland Areas	TCP/DRK/0169	2002	2003	289 807
Support to the Double-Cropping Programme – Spring and Main Crops 2002	OSRO/DRK/202/FIN	2002	2002	263 460
Conservation Agriculture for Food Security	TCP/DRK/2903	2002	2004	253 214
Improvements in Soil Analysis and Fertilization	TCP/DRK/2901	2002	2004	202 208
Support to the Double-Cropping Programme (Main and Winter Crops 2003) within AREP	OSRO/DRK/302/SWE	2003	2004	1 008 148
Emergency Measures for Control of Siberian Caterpillar	TCP/DRK/2904	2003	2004	385 140

Title	Symbol	EOD	NTE	Budget (\$)
Support to the Double-Cropping Programme (Main and Winter Crops 2003) within AREP	OSRO/DRK/303/FIN	2003	2004	352 302
Dairy Goat Improvement	TCP/DRK/2905	2003	2005	343 679
Strengthening Capacity in Appropriate Integrated Fish Culture Systems	TCP/DRK/2902	2003	2005	270 555
Technical Assistance in Support of Agricultural Relief Operations in the Democratic People's Republic of Korea	OSRO/DRK/301/SWE	2003	2004	253 535
Support to the double-cropping programme – main and winter crops production and to the coordination of emergency agricultural interventions, 2004	OSRO/DRK/402/SWE	2004	2005	1 067 629
Support to the double-cropping programme (spring and main crops production 2004)	OSRO/DRK/401/NOR	2004	2004	473 495
Support to horticultural crops programme	OSRO/DRK/403/FIN	2004	2005	426 836
Support to the double-cropping (main and winter crops) and horticultural programme	OSRO/DRK/404/NOR	2004	2005	391 587
Capacity building to use biotechnology tools to enhance rice and maize breeding programmes	TCP/DRK/3003	2004	2006	342 736
Strengthening Marine Aquaculture Development	TCP/DRK/3001	2004	2005	255 992
Support to the Summer-Autumn Crop Production 2005 and to the coordination of emergency, rehabilitation and recovery interventions in agriculture/food security in DPR Korea	OSRO/DRK/501/SWE	2005	2006	1 098 535
"Support to the Coastal Fishing Cooperatives 2005" in DPR Korea	OSRO/DRK/502/NOR	2005	2006	468 347
Emergency assistance for the control and prevention of avian influenza	TCP/DRK/3006	2005	2007	218 000
Australian emergency assistance for the control and prevention of avian influenza in the Democratic People's Republic of Korea	OSRO/DRK/503/AUL	2005	2006	192 000
Conservation agriculture for food security (phase II of TCP/DRK/2903)	TCP/DRK/3004	2005	2005	111 000
Support to Agricultural and Horticultural Production and to the Coordination of Emergency/Rehabilitation Interventions in Agriculture/Food Security in 2006-2008	OSRO/DRK/603/SWE	2006	2008	2 494 031
Support to the Afforestation and Protection of the Ecological Environment of Agricultural Lands in the Plain Areas	TCP/DRK/3101	2006	2009	295 850
Emergency assistance for the control and prevention of avian influenza	OSRO/DRK/504/NOR	2006	2007	193 151
Support to Summer Crops Production 2007	OSRO/DRK/701/CHA	2007	2007	700 000
Rapid Restoration of Food Crop Production and Food Availability	OSRO/DRK/704/CHA	2007	2008	600 000
Emergency assistance for early detection, response and control of foot-and-mouth disease outbreaks	TCP/DRK/3104	2007	2009	430 000

Title	Symbol	EOD	NTE	Budget (\$)
Strengthening the technical capacity for introduction and production of high-yielding soybean varieties for edible oil and protein production in cooperative farms	TCP/DRK/3103	2007	2009	355 000
Strengthening project development capacity of the National Committee for FAO and Ministries of Agriculture, Fisheries, Land and Environmental Protection and Forestry	TCP/DRK/3102	2007	2008	119 000
Integrating Potato Production into the Conservation Agriculture Approach, under Double-Cropping	OSRO/DRK/801/NET	2008	2009	788 650
Support to barley and vegetable crop production	OSRO/DRK/803/CHA	2008	2009	599 869
Input supply to vulnerable populations under ISFP	TCP/DRK/3203	2008	2009	500 000
Emergency assistance to reduce the spread and impact of <i>Dendrolimus spectabilis</i>	TCP/DRK/3202	2008	2010	479 000
Assistance to improve the fruit production sector	TCP/DRK/3106	2008	2009	450 000
Capacity Building for the Prevention and Control of Avian Influenza in the Democratic People's Republic of Korea	OSRO/DRK/703/EC	2008	2009	352 271
Support to coordination of interventions in agriculture and food security in the Democratic People's Republic of Korea in 2008/09	OSRO/DRK/802/ITA	2008	2009	235 849
Emergency support to early crop production	OSRO/DRK/903/CHA	2009	2010	1 700 001
Emergency support to main summer crop production – CERF grant number UFE 09-FAO-009	OSRO/DRK/902/CHA	2009	2009	1 150 001
Special Programme for Food Security – (Second Phase of GCSP/DRK/003/ITA)	GCSP/DRK/003/ITA	2009	2012	1 060 495
Capacity building in fingerling production and farming of selected marine finfish species	TCP/DRK/3204	2009	2010	297 000
Support to agriculture and food security coordination activities in the Democratic People's Republic of Korea	OSRO/DRK/901/SWE	2009	2010	240 000
Emergency support to 2010 spring and summer crop production	OSRO/DRK/001/CHA	2010	2010	1 440 000
Emergency support to 2010 spring and summer crop production	OSRO/DRK/002/CHA	2010	2011	899 999
Improved production and processing of sweet sorghum for food, sugar, biofuel and fodder in reclaimed land, seasonal wetland and arid regions	TCP/DRK/3301	2010	2012	356 000
Walnut Improvement	TCP/DRK/3303	2011	2012	361 000
Capacity building in seed production and juvenile rearing of ark shell and sea urchin species	TCP/DRK/3304	2011	2012	328 000

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